

Date: Thursday, 01/05/2008 11:56:33 AM
 User: Julie Lecocq

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: SKIDTUBE ASSEMBLY
Job Number	: 38940		
Estimate Number	: 10022		
P.O. Number	:	Part Number	: D205634011
This Issue	: 01/05/2008	S.O. No.	:
Prsht Rev.	: NC	Drawing Number	: N/A
First Issue	: //	Project Number	: N/A
Previous Run	: 38939	Drawing Revision	: N/A
	Type : SKIDTUBES	Material	:
Written By	:	Due Date	: 20/05/2008
Checked & Approved By	: <u>JLD 08.5.01</u>	Qty:	1 Um: Each
Comment	: Est Rev:P 02.08.28 Removed QC5 from Step 5 KJ		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	DC	DOCUMENT CONTROL
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**Comment:** DOCUMENT CONTROL

Photocopy bluefile & type labels per PPP D205-634-011

CHG005

8 08/05/09 JLD
8.5.06

2.0	38940A	SKID TUBE ASSEMBLY
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Comment: Sub-Component SKID TUBE ASSEMBLY
 D205-634-041 B 38940 A

SQ

3.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1
 Pick Packing Kit

4.0	K10003	Saddle, D205-634-011
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(X)

Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty	Part Number	Description	Batch
1	K10003	Saddle Kit	<u>37101</u>

8/5/9

SQ

5.0	QC4	INSPECT 100% KITS FOR COMPLETENESS
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**Comment:** INSPECT 100% KITS FOR COMPLETENESS

8 08/05/09 (X)

Date: Thursday, 01/05/2008 11:56:51 AM
 User: Julie Lecocq

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: SKID TUBE ASSEMBLY
Job Number	: 38940A		
Estimate Number	: 10023		
P.O. Number	:	Part Number	: D205634041
This Issue	: 01/05/2008	S.O. No.	:
Prsht Rev.	: NC	Drawing Number	: D2580 REV D
First Issue	: / /	Project Number	: N/A
Previous Run	: 38939A	Drawing Revision	: D
Written By	:	Material	:
Checked & Approved By	: <u>JLD 08-5-01</u>	Due Date	: 20/05/2008
Comment	: Est Rev:N 02.08.28 FP was QC5 in Step 27; Added QC5 to Step 30 KJ Est Rev: O 06.02.28 Added paperwork EC Est Rev:P 07-07-09 SS Wearplates & Gaskets JLM		

Qty: 1 Um: Each

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	DC	DOCUMENT CONTROL
-----	----	------------------



Comment: DOCUMENT CONTROL
 Photocopy D205-634 bluefile & type labels per PPP D205-634 CHG002

N/A

2.0	D25001190	Ext'n -1' Beam Tube 4"
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)
 Pick:

Qty	Part Number	Description	Batch
1	D2500-1-190	Skid Tube Extrusion	B 37544

8-5-1 JD

3.0	D2596	Web, 205 Skidtube
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)
 Pick:

Qty	Part Number	Description	Batch
1	D2596	205 Web	B38951

JD 8-5-1

4.0	SKIDTUBES 1	SKIDTUBESS RESOURCE 1
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**Comment:** LANDING GEAR RESOURCE 1

1- Inspect mat'l D2500-1-190 for damage

2-Cut D2500-1-190 per Dwg D2580 if necessary Deburrr ends

3-Acid etch and Alodine tube per QSI 005 4.1

8-5-1-JD

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date				

NOTE: Date & initial all entries

Date: Thursday, 01/05/2008 11:56:51 AM
User: Julie Lecocq

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SKID TUBE ASSEMBLY

Job Number: 38940A

Part Number: D205634041

Job Number:



Seq. #: Machine Or Operation: Description :

9.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

5 08/05/06 (R)

10.0

D25763

Step (maching detail)



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty	Part Number	Description	Batch
1	D2576-3	Step	B33321

BE 08/05/07

11.0

D2579

Crossbolt Spacer



Comment: Qty.: 20.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick:

Qty	Part Number	Description	Batch
20	D2579	Spacers	B33323

BE 08/05/07

12.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

2-Weld step D2576 as per Dwg. D2580 and QSI 004

A/R

Aluminum Rod

m107263

BE 08/05/07

3-Weld crossbolt spacers D2579 as per Dwg. D2580 and QSI 004.

For D2579 spacers, weld one side, pass 3/8" drill, weld other side, pass 3/8" drill

A/R

Aluminum Rod

m107263

BE 08/05/07

4-Grind welds as per Dwg D2580 Grind flush ridge made from bending

5-Drill holes for wearplates using DT 8217 & DT8937 Open holes to 19/64", adjust stopper not to hit web. Debur

6-Counterbore crossbolt spacers to 7/16" ID x 1.0" deep as per Dwg D2580. Debur holes

7-Drill pilot holes for aft cap using DT 8215 Open holes to 0.208". Debur

8-Drill pilot holes for Tow ring using DT8091, open to .640" and Debur

AWM
8-5-7

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 01/05/2008 11:56:51 AM
User: Julie Lecocq

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SKID TUBE ASSEMBLY

Job Number: 38940A

Part Number: D205634041

Job Number:



Seq. #: Machine Or Operation: Description :

13.0 QC10 VISUAL INSPECTION OF GROUND WELDS



Comment: VISUAL INSPECTION OF GROUND WELDS

5 08/05/02 (XO)

14.0 QC5 INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

6 08/05/02 (XO)

15.0 HAND FINISHING1 HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1
Pressure wash as per QSI 005

BR 08-05-07 (D)

16.0 POWDER COATING POWDER COATING



Comment: POWDER COATING
Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

KA 1007550

START TIME: 7:45am
OVEN TEMPERATURE: 320°F
FINISH TIME: 8:15am

YJ 08-05-08 (+)

17.0 QC3 , INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

BR 08-05-08 (D)

18.0 D2855 Cap



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)
Cap
Batch: B37576

BR

19.0 AN35A Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)
Bolt
Batch: M100188

BR

BR 08-05-08 (D)

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 01/05/2008 11:56:52 AM
User: Julie Lecocq

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SKID TUBE ASSEMBLY

Job Number: 38940A

Part Number: D205634041

Job Number:



Seq. #:

Machine Or Operation:

Description :

20.0

AN960JD10L

Washer



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Washer

Batch: M 104885

BR

* 21.0

ALS71032130

Insert



Comment: Qty.: 50.0000 Each(s)/Unit Total : 50.0000 Each(s)

Insert

Batch: M 105819

BR

22.0

AN3C4A

BOLT



Comment: Qty.: 50.0000 Each(s)/Unit Total : 50.0000 Each(s)

BOLT

Batch: M 107242

BR

23.0

AN960C10L

washer



Comment: Qty.: 50.0000 Each(s)/Unit Total : 50.0000 Each(s)

washer

Batch: M 107736

BR

24.0

D356613

Gasket



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

GASKET

Batch: B 32744

BR

25.0

D35665

Gasket



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

GASKET

Batch: B 38647

BR

26.0

D35661

Gasket



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

GASKET

Batch: B 38681

BR 08-05-08 ①

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 01/05/2008 11:56:52 AM
User: Julie Lecocq

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SKID TUBE ASSEMBLY

Job Number: 38940A

Part Number: D205634041

Job Number:



Seq. #:

Machine Or Operation:

Description :

Sikaflex expire date: ~~08-10~~

2-Coat D2594-3 O' rings with Petroleum Jelly and install on D2594-1 plugs as per Dwg D2580

3-Inspect for foreign object per QSI 024

4-Install 2855 Aft Cap as per Dwg D2580 and seal Fwd Step & Aft Cap with Sikaflex. Clean excess adhesive

A/R Sikaflex-291

Sikaflex expire date: ~~08-10~~

5-Wing Walk as per Dwg D2580 and QSI 005 4.4

Batch: M107380

BR 08-05-08

BR 08-05-08

34.0

QC5

INSPECT WORK TO CURRENT STEP



8 08/05/09 @



Comment: Inspect Aft Cap, Fwd Step and Wing Walk of work to Current Step Inspect for Foreign objects per QSI 024

35.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D205-634-041

Location: PPP 38940

PPP Rev:

AS 08/05/09

36.0

QC21

FINAL INSPECTION/W/O RELEASE



08/05/12

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



CMF 08-05-09

38940A

NO. 154

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliot
Job number: 33940A
Part number: D205 E24041
Description: SKID JUMP 205
Welding Process: Tig ☒ Mig ☐
Base material: Aluminium
Current: AC ☒ DC ☐

TEST REQUIREMENTS AND RESULTS

Visual:
Penetration:

pass ☒ fail ☐
pass ☐ fail ☐

UNACCEPTABLE

Cracks:
Undercut:
Pin holes:
Overlap (cold lap)
Porosity (surface):
Coloration:

pass ☒ fail ☐
pass ☒ fail ☐
pass ☒ fail ☐
pass ☒ fail ☐
pass ☒ fail ☐
pass ☒ fail ☐

Qualifier Det Duval Date of Test Coupon 0805-07

Welder Barclay Elliot Date of Test Coupon 08-05-07

The above named individual is qualified in accordance with AWS D17.1.2001 to weld

RELEASED
07-06-28

Diagram illustrating the underside of a component, likely a propeller hub, with grinding locations marked. The diagram includes the following labels and features:

- GRIND FLUSH (4 PLACES)**: Points to four locations on the inner surface of the hub.
- GRIND FLUSH**: Points to the outer edge of the hub.
- D2576-3 STEP**: Points to a specific step or feature on the outer edge.
- LOCATION RIDGE ON UNDERSIDE OF D2576**: Points to a ridge on the underside of the component.
- 1/4**: A dimension line indicating a quarter-inch measurement.

Diagram illustrating the assembly of a bolted joint. The components and dimensions are labeled as follows:

- DRILL PRIOR TO D2855 CAP INSTALLATION (2 PLACES)
- SEAL WITH SIKAFLEX-241/-291
- AN3-5A BOLT (1)
- AN96QJD10L WASHER (1)
- (2 PLACES)
- D2855 CAP
- 0.208
- 0.40

5

D2579 SPACER

D2596 WEB (REF)

ALS7-1032-130 (REF)
(TYP 50 PLACES)

AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR Ø0.508 HOLES ONLY:

1. CHAMFER HOLE 0.050 X 45°
2. INSERT D2579 SPACER (20 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. C'BORE D2579 SPACER TO Ø0.437 X 1.00 DEEP

i) FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB POWDER COAT ASSEMBLY GLOSS WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3 BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4

37.50
DISTANCE TO AFT END
OF D2596 WEB

3 7

1.750 1.750

Ø0.508 (TYP.)
(40 PLACES)

REFER TO DETAIL A

REFER TO DETAIL A

8.750
17.375
26.000
34.188

57.313 (REF)
7 EQUAL SPACES
8.188 PITCH

38.0 91.500 190.0
(D2500-1)

1.4

4

13.4

1.0

DISTANCE BETWEEN HOLE AND TANGENT POINT

20.0

4

0.640

11.0

32.0 ± 1.0

1.0

DISTANCE BETWEEN HOLE AND TANGENT POINT

12000 GFI ASSEMBLY DETAIL

0.5 1.5 1.5

BLACK ANTI-SKID TO 0.5 ABOVE LOCATION RIDGE

WELD AS PER DETAIL B

BLACK ANTI-SKID TOP OF STEP TO 0.5 ABOVE BOTTOM EDGE

8

1.5 1.5

P P P P P P P P

REFER TO DETAIL C

D3566-1 D3566-5 D3566-1 D3566-11

D3564-11 D3564-5 D3564-9 D3564-1

AN3C4A BOLT (1)
AN960C10L WASHER (1)
(50 PLACES)

DESIGN	DRAWN BY
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SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 389407

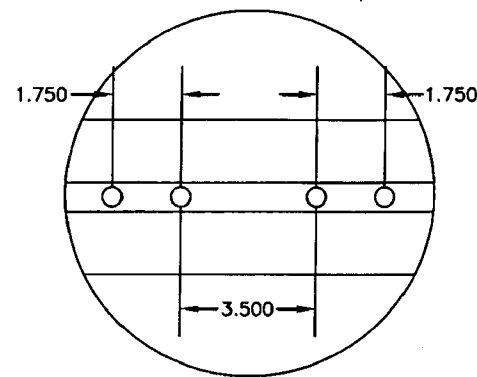
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07.02.27

205 SKIDTUBE ASSEMBLY

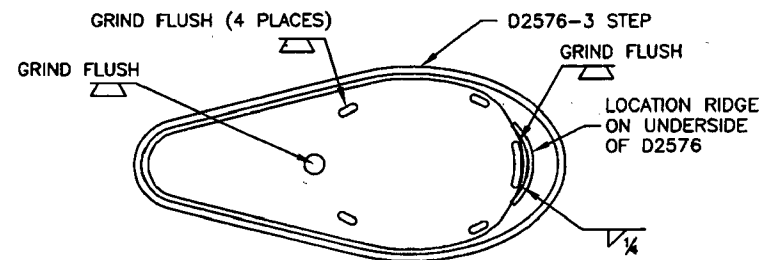
SEMBLY 1:24

DETAIL E
SCALE 5:24

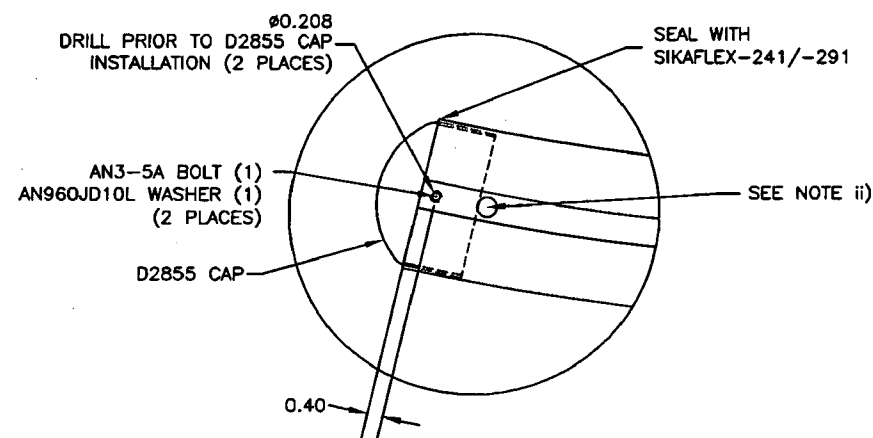


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07.02.27

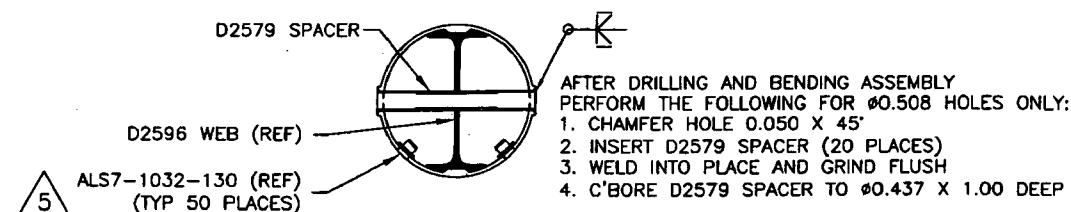
DETAIL F
SCALE 5:24



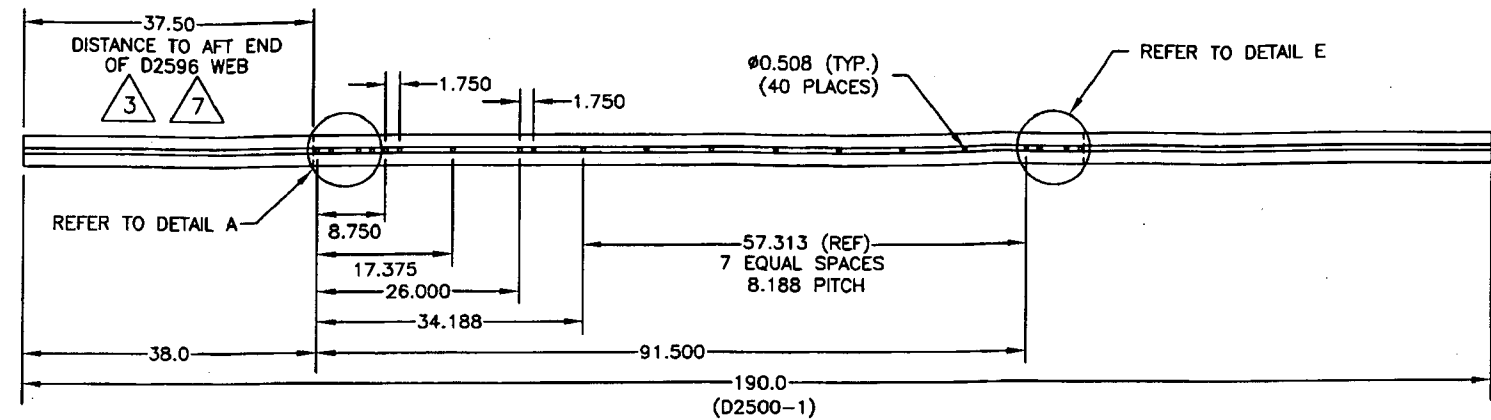
DETAIL G
SCALE 5:24



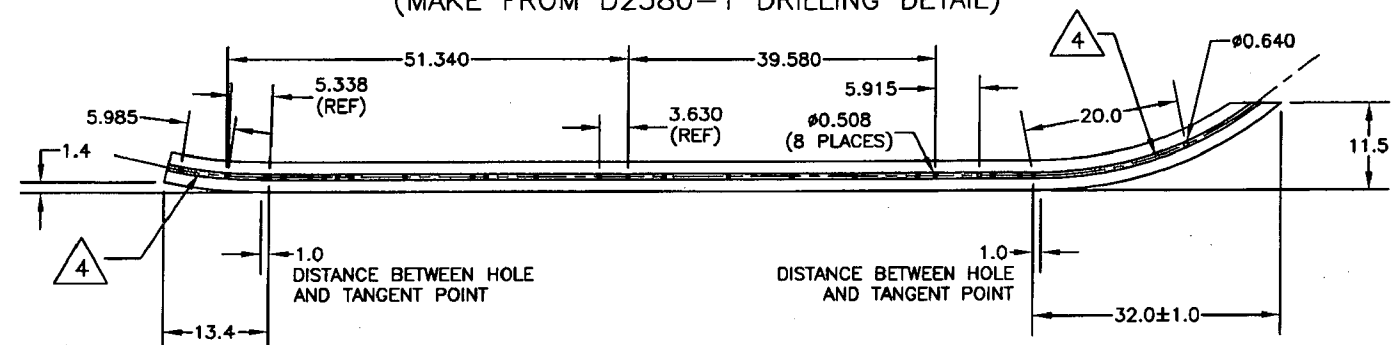
SECTION H-H
SCALE 5:24



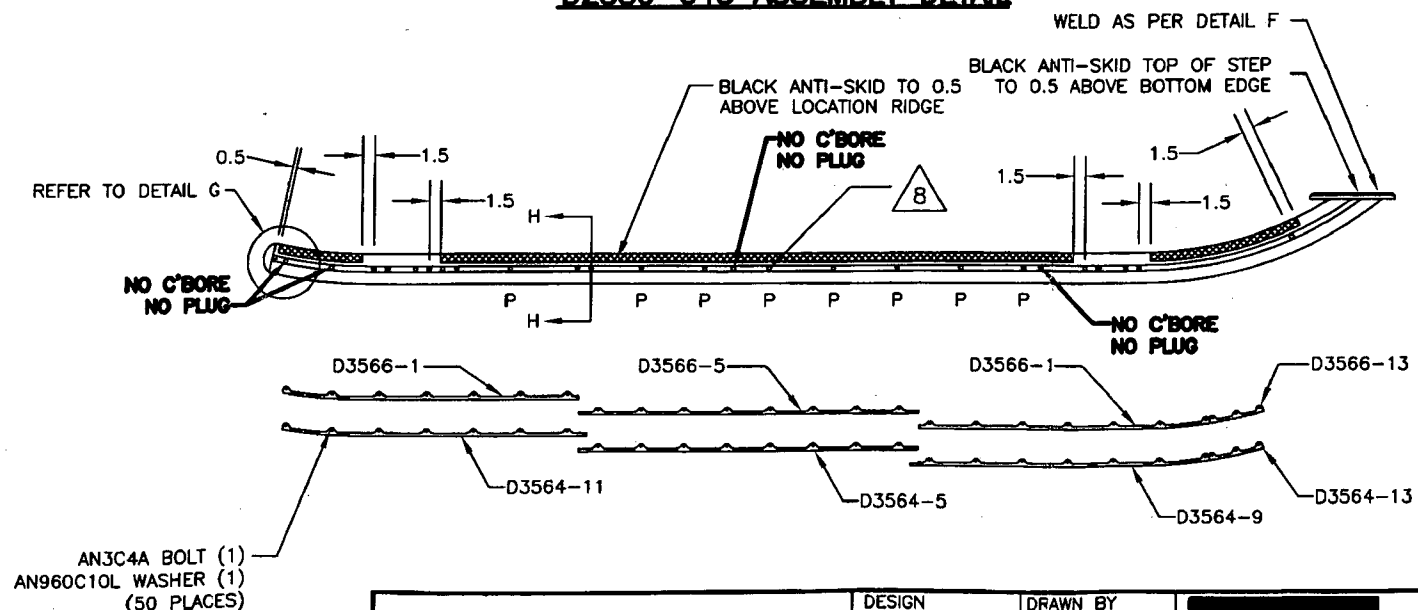
D2580-1 DRILLING DETAIL



D2580-5 BENDING AND CUTTING DETAIL
(MAKE FROM D2580-1 DRILLING DETAIL)



D2580-045 ASSEMBLY DETAIL



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WORK ORDER
NO. 389404

D2580-045 NOTES

- FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB
POWDER COAT ENTIRE ASSEMBLY GREEN (REF. 4.3.5.8) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4
- IT IS ACCEPTABLE TO GRIND A RELIEF IN THE D2855 AFT CAP TO PREVENT INTERFERENCE
WITH THE SPACER AT THIS LOCATION

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DESIGN RH	DRAWN BY RH	DART	DART AEROSPACE LTD. HAWKESBURY, ONTARIO, CANADA
CHECKED H	APPROVED H	DRAWING NO. D2580	REV. 0 SHEET 3 OF 3
DATE 07.02.27	TITLE 205 SKIDTUBE ASSEMBLY	SCALE 1:24	

